Low Profile Mini Spring™ Inductors

- Only 2 mm tall
- High Q over a wide range of frequencies
- Low DCR and excellent current handling capability

Designer's Kit C394 contains 10 samples each 5% part
Designer's Kit C394-2 contains 10 samples each 2% part
Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Weight 48 – 130 g
Ambient temperature –40°C to +125°C with Irms current
Maximum part temperature +140°C (ambient + temp rise).
Storage temperature Component: –40°C to +140°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) One per billion hours / one billion hours, calculated per Telcordia SR-332
Packaging 1000/7″ reel; 3500/13″ reel Plastic tape: 2 mm wide, 0.23 mm thick, 8 mm pocket spacing, 2.2 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Turns	Inductance[2] (nH)	Percent tol[3]	Q[2] min	SRF min[4] (GHz)	DCR max[5] (mOhm)	Irms[6] (A)	Wt (mg)
1508-5N5_L_	3	5.5	**5,2**	115	5.0	2.6	4.0	52
1508-9N0_L_	4	9.0	**5,2**	120	4.0	3.4	4.0	65
1508-13N_L_	5	13.0	**5,2**	100	3.0	3.9	4.0	78
2508-16N_L_	7	16.0	**5,2**	110	3.0	5.2	4.0	110
2508-18N_L_	8	18.0	**5,2**	110	2.9	6.0	4.0	118
2508-23N_L_	9	23.0	**5,2**	110	2.6	6.8	4.0	133
2508-27N_L_	10	27.0	**5,2**	110	2.3	7.9	4.0	147

1. Specify **tolerance**, **termination** and **packaging** codes:

2508-27NJLC

Tolerance: **G** = 2% **J** = 5%
Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper. **Special order: T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).
Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel).
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3500 parts per full reel).

2. L and Q measured at 250 MHz, 0.1 Vrms, 0 A using an Agilent/HP 4291A impedance analyzer with an Agilent/HP 16193A test fixture.
3. Tolerances in bold are stocked for immediate shipment.
4. SRF measured using an Agilent/HP 8753 network analyzer and a Coilcraft SMD-D test fixture.
5. DCR measured using a micro-ohmmeter.
6. Current that causes a 15°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

S-Parameter files
ON OUR WEB SITE

SPICE models
ON OUR WEB SITE

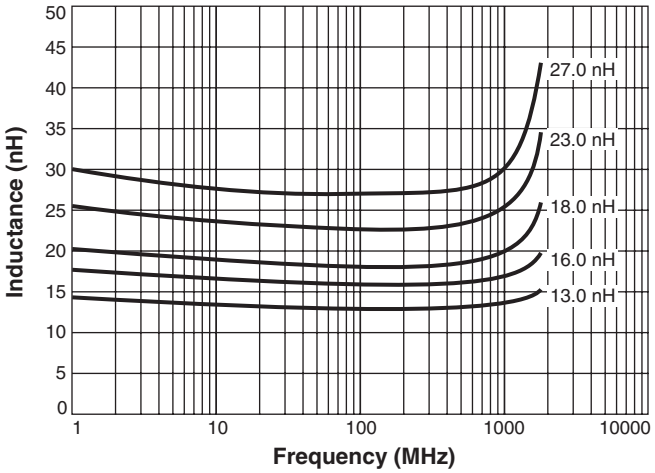
Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

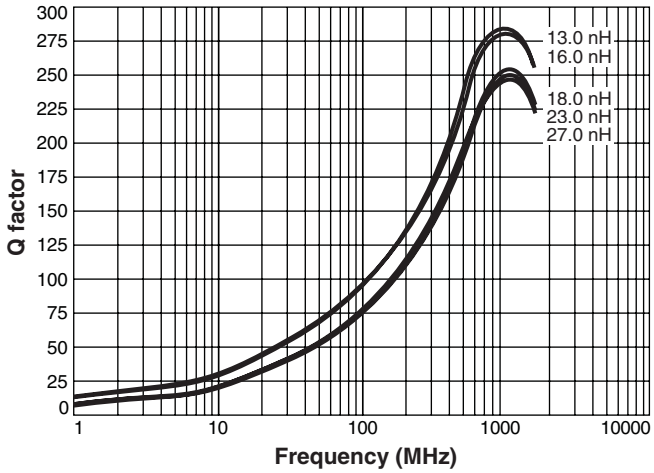
Document 404-1 Revised 10/13/15

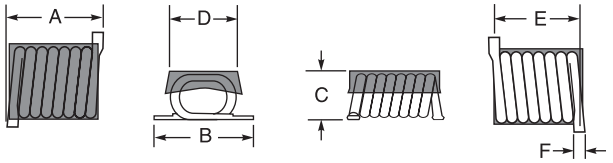
Low Profile Mini Spring™ Inductors

Typical L vs Frequency



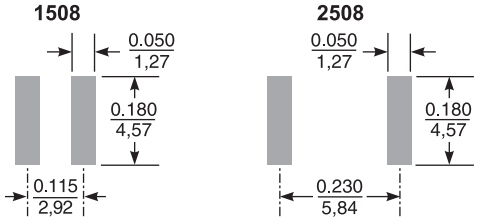
Typical Q vs Frequency



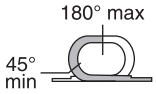


Size	A max	B max	C max	D	E	F max
1508	0.155 3,94	0.165 4,19	0.079 2,01	0.135 3,43	0.115 ±0.015 2,92 ±0,38	0.029 0,74
2508	0.270 6,86	0.165 4,19	0.079 2,01	0.135 3,43	0.230 ±0.015 5,84 ±0,38	0.029 0,74

Recommended Land Patterns



Strip Length



Dimensions are in inches / mm

Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 404-2 Revised 10/13/15